

Attorney Docket No.: **ABLE-0020**
Inventors: **Urbaniak and Barker**
Serial No.: **09/857,097**
Filing Date: **July 27, 2001**
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the Claims:

Claim 1 (currently amended): A ~~pharmaceutical composition method~~ for the prevention of alloimmunisation of a subject, ~~said composition comprising administering to the subject~~ an immunologically effective epitope of a rhesus protein ~~or an immunologically active analogue or derivative thereof~~.

Claim 2 (currently amended): A ~~pharmaceutical composition method~~ for the immunosuppression of a response elicited by alloimmunisation of a subject ~~or an autoimmune haemolytic disease, said composition comprising administering to the subject~~ an immunologically effective epitope of a rhesus protein ~~or an immunologically active analogue or derivative thereof~~.

Claim 3 (canceled)

Claim 4 (currently amended): A ~~pharmaceutical composition method~~ according to ~~any preceding~~ claim 1 or 2 wherein the rhesus protein is either RhD, RhC, Rhc, RhE, or Rhe protein.

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Claim 5 (currently amended): A ~~pharmaceutical composition method~~ according to ~~claim 4 comprising an claim~~ 1 or 2 wherein the epitope is selected from at least one of SEQ ID numbers 2, 5, 6, 6A, 10A, 11, 11A, 12, 12A, 14, 15A, 18A, 28, 29, 31, 38, and 39, 44, 47, 50, 51, 66, 75, 77, 78, 79, 81 and 84 ~~hereinbefore set forth.~~

Claim 6 (currently amended): A ~~pharmaceutical composition method~~ according to ~~either claims 4 or 5~~ claim 5 wherein the epitope is ~~either epitope 12A when alloimmunisation has occurred, or epitope 29 for autoimmune haemolytic anaemia~~ SEQ ID NO:79.

Claim 7 (currently amended): A ~~pharmaceutical composition method~~ according to ~~any preceding~~ claim 1 or 2 wherein the epitope or immunoreactive derivative is synthesised.

Claim 8 (currently amended): A ~~pharmaceutical composition for the induction of alloimmunisation of a subject, said composition comprising an immunologically effective epitope of a rhesus protein or an immunologically active analogue or derivative thereof~~ method of claim 1 or 2 wherein the epitope is disposed in a pharmacologically acceptable vehicle.

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Claim 9-11 (canceled)

Claim 12 (currently amended): A ~~pharmaceutical composition method~~ according to ~~any of claims 8 to 11~~ claim 8 wherein the vehicle is selected such that the composition is in an injectable, oral, rectal, topical or spray-uptake form.

Claim 13-15 (canceled)

Claim 16 (currently amended): A ~~tolerising peptide fragment according to any of claims 13 to 15~~ method according to claim 8 wherein the pharmaceutically acceptable vehicle is adapted for transdermal or transmucosal administration or wherein said vehicle is a formulation with an enteric coating for oral administration.

Claim 17-18 (canceled)

Claim 19 (currently amended): ~~The use in the manufacture of a medicament~~ A method for the tolerisation of a patient who may become alloimmunised comprising administering an epitope selected from a RhD, RhC, Rhc, RhE or Rhe protein or selected from at least one of epitope SEQ

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ID numbers 2, 5, 6, 6A, 10A, 11, 11A, 12, 12A, 14, 15A, 18A,
28, 29, 31, 38, and 39, 44, 47, 50, 51, 66, 75, 77, 78, 79,
81 and 84 hereinbefore set forth, and a pharmaceutically
acceptable vehicle therefor.

Claim 20 (currently amended): ~~The use in the~~
~~manufacture of a medicament~~ A method for the
immunosuppression of an alloimmunised patient ~~or a patient~~
~~with warm type autoimmune haemolytic anaemia~~ comprising
administering an epitope selected from a RhD, RhC, Rhc, RhE
or Rhe protein or selected from at least one of epitope SEQ
ID numbers 2, 5, 6, 6A, 10A, 11, 11A, 12, 12A, 14, 15A, 18A,
28, 29, 31, 38, and 39, 44, 47, 50, 51, 66, 75, 77, 78, 79,
81 and 84 hereinbefore set forth, and a pharmaceutically
acceptable vehicle therefor.

Claim 21 (currently amended): ~~The use~~ A method
according to either claim 19 or 20 wherein the vehicle is
adapted for transdermal or transmucosal administration.

Claim 22 (currently amended): A method for determining
effect of one or more epitopes from a rhesus protein on a
human lymphocyte, *in vitro*, comprising:

(a) stimulating the lymphocyte with one or more
epitope/peptide of a rhesus protein;

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(b) between 4 to 7 days later resuspending the cultures and transferring aliquots into plates prepared in the following manner:

(c) coating each well in the plate with monoclonal anticytokine capture antibody;

(d) washing the plate at least once with Hanks Buffered Salt Solution (HBSS);

(e) blocking any non-specific binding using an appropriate solution;

(f) incubating the plates with lymphocyte culture for 12-36 hours at 30-40°C in an atmosphere of substantially 5% CO₂ and substantially 95% air;

(g) washing the plates at least once with Tween/PBS;

(h) introducing an appropriate ~~biotinylates~~ biotinylated monoclonal detection antibody to each well and incubating for 30-60 mins at room temperature;

(i) washing the plates at least once with Tween/PBS;

(j) introducing of ExtrAvidin-alkaline phosphatase conjugate and incubating for 15-45 mins;

(k) washing the plates at least once with Tween/PBS;

(l) developing the plates with 50-150 µl per well of p-nitrophenyl phosphate in 0.05M carbonate alkaline buffer pH 9.6 added to each well; and

(m) reading the absorbance at 405 nm.

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Claim 23 (canceled)